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## NOTICE OF ALLOWANCE AND FEE(S) DUE

31518 7590 03/11/2009

NEIFELD IP LAW, PC  
4813-B EISENHOWER AVENUE  
ALEXANDRIA, VA 22304

EXAMINER	
COSIMANO, EDWARD R	
ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 03/11/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,656	08/07/2006	Bernd Georgi	EFFE0016UPCT-US	7695

TITLE OF INVENTION: METHOD FOR DETERMINING THE CO-ORDINATES OF A WORKPIECE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/11/2009

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

**HOW TO REPLY TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**  
**Commissioner for Patents**  
**P.O. Box 1450**  
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**or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

31518      7590      03/11/2009

**NEIFELD IP LAW, PC**  
**4813-B EISENHOWER AVENUE**  
**ALEXANDRIA, VA 22304**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

### **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,656	08/07/2006	Bernd Georgi	EFFE0016UPCT-US	7695

TITLE OF INVENTION: METHOD FOR DETERMINING THE CO-ORDINATES OF A WORKPIECE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/11/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
COSIMANO, EDWARD R	2863	702-150000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are submitted:

Issue Fee  
 Publication Fee (No small entity discount permitted)  
 Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

A check is enclosed.  
 Payment by credit card. Form PTO-2038 is attached.  
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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		ART UNIT		PAPER NUMBER		
				2863		
DATE MAILED: 03/11/2009						

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 351 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 351 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/586,656	GEORGI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	

Edward R. Cosimano

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to the amendment filed 18 December 2008.
2.  The allowed claim(s) is/are 19-22 and 24-39.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

Art Unit: 2863

1. EXAMINER'S COMMENT

1.1 When preparing this Office action the examiner considers the instant application to include:

- A) the Oath/Declaration filed on 07 August 2006 which is acceptable to the examiner;
- B) the Abstract filed on 19 July 2006 which is acceptable to the examiner;
- C) figures 1, 2, 3, 4, 5, 6, 7, 8 & 9 of the set of drawings containing 4 sheets of 9 figures comprising figures 6 & 7 as presented in the set of drawings filed on 19 July 2006 and figures 1, 2, 3, 4, 5, 8 & 9 as presented in the set of drawings filed on 18 December 2008 where figures 1, 2, 3, 4, 5, 6, 7, 8 & 9 of the above set of drawings are acceptable to the examiner;
- D) the written description as filed on 19 July 2006 and amended on 19 July 2006 and amended on 18 December 2008; and
- E) the set of claims as filed on 18 December 2008.

1.2 Applicant's claim for the benefit of an earlier filing date pursuant to 35 U.S.C. 120, 35 U.S.C. 365(c) and 35 U.S.C. 371 are acknowledged.

1.3 Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

1.4 The examiner has considered the prior art cited in the base applications.

1.5 The examiner has approved the proposed changes to figures 1, 3, 8 & 9 as filed on 18 December 2008.

1.6 SUMMARY OF 17 DECEMBER2008 INTERVIEW

1.6.1 The examiner concurs with applicant's summary of the interview regarding a proposed draft response, in which the examiner suggested changes to the location of the heading to more nearly correspond or match the locations for the proposed changes that were indicated in the written description filed and amended on 19 July 2006.

1.7 Response to applicant's arguments.

1.7.1 The objections and rejection that have not been repeated here in have been over come by applicant's last response.

## 2. REASONS FOR ALLOWANCE

2.1 The following is a statement of reasons for the indication of allowable subject matter:

A) the prior art, for example:

(1) either Reading (2,570,275) or Maidhof et al (2003/0112448 or 7,414,732) disclose a machine/process that provides the useful and beneficial function of a co-ordinate measuring machine that determined the relative location/position/offset and orientation of an object on a reference platform in which two separate co-ordinate measuring machines/process are used in combination to make co-ordinate measurements that are then correlated in order to determine the relative location/position/offset and orientation of the object on a reference platform.

(2) either Unger et al (3,436,968) or Henderson (Miller) et al (3,513,444) disclose a machine/process that provides the useful and beneficial function of determining the dimensions of an object being conveyed. To this end the height/thickness of the conveyed object and the width/depth of the conveyed object are measured by an appropriate positioned array of pairs of energy sources and corresponding energy detectors where height/thickness of the conveyed object and the width/depth of the conveyed object are measured/determined by determining the number of pairs of energy detectors that are either blocked/occulted or currently detecting energy from the corresponding energy source. Further the length of the conveyed object is determined by measuring the interval/period of time that one or more of the energy detector is blocked/occulted from the corresponding energy source of the pairs of energy sources/detectors. Finally the weight of the conveyed object is determined from an on the fly weighing scale.

(3) Wilder (4,329,060) discloses a machine/process that provides the useful and beneficial function of a co-ordinate measuring machine/process that determines the relative location/position/offset and orientation of an object on a reference platform relative to a reference by using a flying spot scanner to measure at least two separate known points on the object relative to the reference.

The measurements are then combined in order to make a determination of the relative location/position/offset of the object to the reference.

(4) Tews et al (4,615,093) discloses a machine/process that provides the useful and beneficial function of a measuring machine/process that determines the relative location/position/offset and orientation of an object relative to a reference by using a flying spot scanner to measure when the object casts a shadow as the spot is scanned over the object and the measurements are then combined in order to make a determination of the relative location/position/offset of the object to the reference.

(5) Kaneda et al (6,973,738) discloses a machine/process that provides the useful and beneficial function of determining the co-ordinates of the cutting edge of a tool by first determining the co-ordinates of the position of the center axis of the tool holding spindle relative to a reference in a co-ordinate system and then determining the offset of the cutting edge of the tool relative to the center axis of the tool. These two determinations are then combined in order to determine the actual position of the cutting edge of the tool in the co-ordinate system.

(6) Seichter et al (7,024,789) discloses a machine/process that provides the useful and beneficial function of providing temperature compensated co-ordinate measurements in which a temperature sensor is used in order to provide temperature data/information upon which the measured co-ordinates will be corrected/compensated in order to provide the correct co-ordinates of the measured point/location.

B) however, the prior art does not fairly teach or suggest in regard to claims 19, 33 & 35 a process in claims 19 & 35 and a machine in claim 33 that provides the useful and beneficial function of determining the co-ordinates of an object or work piece attached to a structure with an attached reference structure by combining separate measurements of the co-ordinates of the object and a reference that have been made by two separate co-ordinate measurement machines/processes in two separate co-ordinate systems, for example a “work piece co-ordinate system” and a “reference co-ordinate

system" by providing actions in claims 19 & 35 and structures in claim 33 that perform at least the functions of:

- (1) using a first co-ordinate measuring machine/process in order to measure the first co-ordinates of the reference structure in a first co-ordinate system;
- (2) using the first co-ordinate measuring machine/process in order to measure the first co-ordinates of the object or work piece in the first co-ordinate system;
- (3) using a second co-ordinate measuring machine/process in order to measure the second co-ordinates of the reference structure in a second co-ordinate system;
- (4) using the second co-ordinate measuring machine/process in order to measure the second co-ordinates of the object or work piece in the second co-ordinate system; and
- (5) determining a set of co-ordinates for the object or work piece that have been derived from (a) the measured first co-ordinates of the reference structure, (b) the measured second co-ordinates of the reference structure, (c) the measured first co-ordinates of the object or work piece, and (d) the measured second co-ordinates of the object or work piece.

Claims 20-32, which depend from claim 19, claims 34 & 36, which depend from claim 33, are allowable for the same reason.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward R. Cosimano whose telephone number is 571-272-0571. The examiner can normally be reached on 571-272-0571 from 7:30am to 4:00pm (Eastern Time).

3.1 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn, can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2863

3.2 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ERC  
02/24/2009

**/Edward Cosimano/  
Primary Examiner Unit 2863**